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Relevance scale

1 Cellular and hybrid networks: ARC: an integrated admission and rate control framework for CDMA data networks based on non-cooperative games

Haitao Lin, Mainak Chatterjee, Sajal K. Das, Kalyan Basu

September 2003 **Proceedings of the 9th annual international conference on Mobile computing and networking**

Full text available: pdf(345.66 KB)

Additional Information: [full citation](#), [abstract](#), [references](#), [citings](#), [index terms](#)


The competition among wireless data service providers brings in an option for the customers to switch their providers, due to unsatisfactory service or otherwise. However, the existing resource management algorithms for wireless networks fail to fully capture the far-reaching impact of this *competitiveness*. From this perspective, we propose an integrated *admission and rate control* (ARC) framework for CDMA based wireless data networks. The admission control is at the *session* ...

Keywords: CDMA systems, admission control, non-cooperative games, rate control, wireless data networks

² Performance: A QoS service for IP video applications on demand over DTM

Cláudia J. Barenco, Arturo Azcorra Saloña, José Ignacio Moreno

April 2001 **ACM SIGCOMM Computer Communication Review**, Volume 31 Issue 2 supplement

Full text available:  pdf(2.26 MB)

Additional Information: full citation, abstract, references

The Differentiated Services model (DiffServ) provides a great flexibility in defining a variety of services through PHBs (*Per Hop Behaviors*) and traffic conditioners. It fits in well with the Integrated Services model (IntServ), jointly offering features such as: QoS signaling; admission control; channel management; assignment of resources (buffer and bandwidth); sorter configuration; and establishment of traffic agreements. With this integration you can have a scalable, flexible, and dyn ...


Keywords: DTM, DiffServ, IntServ, QoS, video on demand

3 The Brown University Student Operating System

David S. Wile, Robert G. Munck, Andries Van Dam

January 1967 **Proceedings of the 1967 22nd national conference**

Additional Information:

Full text available:  pdf(1.12 MB)

[full citation](#), [abstract](#), [references](#), [citations](#), [index terms](#)

The tenet that students taking a computer science course (even, and especially, an introductory one) should get actual machine experience has gradually been accepted in the past few years. The Brown University Student Operating System (SOS) provides: 1) such a "cut-down" assembler; 2) an interpreter for simulating the simplified machine whose code the assembler produces; 3) a control program which optimizes program storage, provides line-by-line program editing, and g ...

4 [TILT: Translation in Leisure Time](#)

Abby Gelles, Gary Harris

September 1980 **Proceedings of the 3rd ACM SIGSMALL symposium and the first SIGPC symposium on Small systems**

Full text available:  pdf(676.73 KB)

Additional Information: [full citation](#), [abstract](#), [references](#), [index terms](#)

This paper addresses the question whether it is feasible to implement a computerized translation between audio-visual equipment-driving programmers. Programmer systems are comprised of the hardware and software components which record and play back coded cues defining audio-visual presentation sequences. Cue sequence output differs between programmer systems in the actual coding schemes attributed to cues, the number contiguous of repetitions per cue (redundancy factor) in the output stream ...

Keywords: Audio-visual programmer, Cue bit stream, Leisure time

5 [A pedagogical processor model](#)

Will D. Gillett, Eric B. Muehrcke

February 1983 **ACM SIGCSE Bulletin , Proceedings of the fourteenth SIGCSE technical symposium on Computer science education**, Volume 15 Issue 1

Full text available:  pdf(572.18 KB)


Additional Information: [full citation](#), [abstract](#), [references](#), [citations](#), [index terms](#)

This paper presents a pedagogical processor model, intended for teaching fundamental concepts about von Neumann machines. A general discussion of the desirable pedagogical properties is given, and a specific one address machine is defined. The machine has a simple architecture, supports four addressing modes, and uses a small number of hierarchically organized, fixed-field instructions. Debugging capabilities are included in the definition and can be accessed by executable instruction.

6 [Good news, bad news: experience building software development environment using the object-oriented paradigm](#)

W. H. Harrison, P. F. Sweeney, J. J. Shilling

September 1989 **ACM SIGPLAN Notices , Conference proceedings on Object-oriented programming systems, languages and applications**, Volume 24 Issue 10

Full text available:  pdf(1.21 MB)

Additional Information: [full citation](#), [abstract](#), [references](#), [citations](#), [index terms](#)


This paper presents our experience building an extendible software development environment using the object-oriented paradigm. We have found that object instances provide a natural way to model program constructs, and to capture complex relationships between different aspects of a software system. The object-oriented paradigm can be efficiently implemented on standard hardware and software, and provides some degree of extendibility without requiring major modifications to the existing imple ...

7 [Supporting reverse execution for parallel programs](#)

Douglas Z. Pan, Mark A. Linton

November 1988 **ACM SIGPLAN Notices , Proceedings of the 1988 ACM SIGPLAN and**

SIGOPS workshop on Parallel and distributed debugging, Volume 24 Issue 1


Full text available:  pdf(659.72 KB) Additional Information: [full citation](#), [abstract](#), [references](#), [citations](#), [index terms](#)

Parallel programs are difficult to debug because they run for a long time and two executions may yield different results. Reverse execution, is a simple and powerful concept that solves both these problems. We are designing a tool for debugging parallel programs, called Recap, that provides the illusion of reverse execution using checkpoints and event recording and playback. During normal execution, Recap logs the results of system calls and shared memory reads: as well as ...

- 8 Understanding and verifying distributed algorithms using stratified decomposition
Ching Tsun Chou, Eli Gafni
January 1988 **Proceedings of the seventh annual ACM Symposium on Principles of distributed computing**


Full text available:  pdf(1.94 MB) Additional Information: [full citation](#), [references](#), [citations](#), [index terms](#)

- 9 Session 2: modeling: A flow-based model for internet backbone traffic
Chadi Barakat, Patrick Thiran, Gianluca Iannaccone, Christophe Diot, Philippe Owezarski
November 2002 **Proceedings of the second ACM SIGCOMM Workshop on Internet measurement**


Full text available:  pdf(1.35 MB) Additional Information: [full citation](#), [abstract](#), [references](#), [citations](#), [index terms](#)

Our goal is to design a traffic model for uncongested IP backbone links that is simple enough to be used in network operation, and that is protocol and application agnostic in order to be as general as possible. The proposed solution is to model the traffic at the flow level by a Poisson shot-noise process. In our model, a flow is a generic notion that must be able to capture the characteristics of any kind of data stream. We analyze the accuracy of the model with real traffic traces collected o ...

- 10 Automatic generation of machine specific code optimizers
Robert Giegerich
January 1982 **Proceedings of the 9th ACM SIGPLAN-SIGACT symposium on Principles of programming languages**

Full text available:  pdf(459.81 KB) Additional Information: [full citation](#), [references](#), [citations](#)

- 11 Session 10D: management of computation: Intelligent agents for QoS management
Krunoslav Trzec, Darko Huljenic
July 2002 **Proceedings of the first international joint conference on Autonomous agents and multiagent systems: part 3**

Full text available:  pdf(281.59 KB) Additional Information: [full citation](#), [abstract](#), [references](#), [index terms](#)


This paper addresses the structural and behavioral characteristics of multi-agent system (MAS) for Quality of Service (QoS) management using MESSAGE (Methodology for Engineering Systems of Software Agents) modeling language that extends UML (Unified Modeling Language) by contributing agent knowledge level concepts and diagrams with notation for viewing them. Such a multi-agent system is an environment composed of Intelligent Agents (IAs) that ensure guaranteed QoS offered by multi-service commun ...

Keywords: MESSAGE/UML, QoS management, intelligent agents

12 IS '97: model curriculum and guidelines for undergraduate degree programs in information systems

Gordon B. Davis, John T. Gorgone, J. Daniel Couger, David L. Feinstein, Herbert E. Longenecker


December 1997 **ACM SIGMIS Database , Guidelines for undergraduate degree programs on Model curriculum and guidelines for undergraduate degree programs in information systems**, Volume 28 Issue 1

Full text available:  pdf(7.24 MB) Additional Information: [full citation](#), [citations](#)

13 Full abstraction of a real-time denotational semantics for an OCCAM-like language

C. Huizing, R. Gerth, W. P. deRoever

October 1987 **Proceedings of the 14th ACM SIGACT-SIGPLAN symposium on Principles of programming languages**

Full text available:  pdf(1.19 MB) Additional Information: [full citation](#), [abstract](#), [references](#), [citations](#), [index terms](#)

We present a fully abstract semantics for real-time distributed computing of the Ada and OCCAM kind in a denotational style. This semantics turns termination, communication along channels, and the time communication takes place, into observables. Yet it is the coarsest semantics to do so which is syntax-directed (this is known as full abstraction). It extends the linear history semantics for CSP of Francez, Lehman and Pnueli. Our execution model is based on maximizing concurrent activity as ...

14 Evaluation of modeling techniques for agent-based systems

Onn Shehory, Arnon Sturm

May 2001 **Proceedings of the fifth international conference on Autonomous agents**

Full text available:  pdf(205.47 KB) Additional Information: [full citation](#), [abstract](#), [references](#), [citations](#), [index terms](#)

To develop agent- based systems, one needs a methodology that supports the development process as common in other disciplines. In recent years, several such methodologies and modeling techniques have been suggested. An important question is, to what extent do the existing methodologies address the developers' needs. In this paper we attempt to answer this question. In particular, we discuss suitability of agent modeling techniques to agent-based systems development. In evaluating existing ...

15 An approach to designing reusable service frameworks via virtual service machine

Jun-Jang Jang

May 2001 **ACM SIGSOFT Software Engineering Notes , Proceedings of the 2001 symposium on Software reusability: putting software reuse in context**, Volume 26 Issue 3

Full text available:  pdf(268.45 KB) Additional Information: [full citation](#), [abstract](#), [references](#), [index terms](#)

This paper proposes a new service-computing platform named Virtual Service Machine (VSM). Service computing is a new paradigm for manufacturing IT artifacts, lifting up traditional focus of software development from the level of applications to that of services. Applications are constructed for machines; services are built for people. Applications are targeted to run on a particular platform; services are aimed for serving user's needs. While service computing is getting much more attention ...

Keywords: object-oriented technologies, service computing platform, service framework, software architecture

16 A software engineering approach and tool set for developing Internet applications

David A. Marca, Beth A. Perdue

June 2000 **Proceedings of the 22nd international conference on Software engineering**

Full text available:  pdf(159.11 KB) Additional Information: [full citation](#), [abstract](#), [references](#), [index terms](#)


If a business built a plant to produce products without first designing a process to manufacture them, the risk would be lack of capacity without significant plant redesign. Similarly, lacking a software engineering approach and tools for designing e-business connections before creating them, can risk: 1) designing the business partnership incorrectly, 2) not implementing the connection quickly enough, or 3) having operations that cannot adapt to changes in business direction. This ...

Keywords: IDEF0 process model, Internet application, client/server architecture, hypertext, software engineering environment

17 An automatic object inlining optimization and its evaluation

Julian Dolby, Andrew Chien

May 2000 **ACM SIGPLAN Notices , Proceedings of the ACM SIGPLAN 2000 conference on Programming language design and implementation**, Volume 35 Issue 5


Full text available:  pdf(877.17 KB) Additional Information: [full citation](#), [abstract](#), [references](#), [citations](#), [index terms](#)

Automatic object inlining [19, 20] transforms heap data structures by fusing parent and child objects together. It can improve runtime by reducing object allocation and pointer dereference costs. We report continuing work studying object inlining optimizations. In particular, we present a new semantic derivation of the correctness conditions for object inlining, and program analysis which extends our previous work. And we present an object inlining transformation, focusing ...

18 Effective synchronization removal for Java

Erik Ruf

May 2000 **ACM SIGPLAN Notices , Proceedings of the ACM SIGPLAN 2000 conference on Programming language design and implementation**, Volume 35 Issue 5


Full text available:  pdf(819.53 KB) Additional Information: [full citation](#), [abstract](#), [references](#), [citations](#), [index terms](#)

We present a new technique for removing unnecessary synchronization operations from statically compiled Java programs. Our approach improves upon current efforts based on escape analysis, as it can eliminate synchronization operations even on objects that escape their allocating threads. It makes use of a compact, equivalence-class-based representation that eliminates the need for fixed point operations during the analysis. We describe and evaluate the performance of an implemen ...

19 Modelling activities in information systems using the coordination language MANIFOLD

George A. Papadopoulos, Farhad Arbab

February 1998 **Proceedings of the 1998 ACM symposium on Applied Computing**

Full text available:  pdf(964.38 KB) Additional Information: [full citation](#), [references](#), [index terms](#)

Keywords: collaborative computing environments, coordination languages and moels, design of distributed and open information systems, modelling information systems

20 Automated layout synthesis in the YASC silicon compiler

David E. Krekelberg, Eugene Shragowitz, Gerald E. Sobelman, Li-Shin Lin

July 1986 **Proceedings of the 23rd ACM/IEEE conference on Design automation**

Full text available:  pdf(728.70 KB) Additional Information: [full citation](#), [abstract](#), [references](#), [index terms](#)

In this paper, we present algorithms and experimental results for an automated layout synthesis procedure that is used in a high-level silicon compiler. The techniques consist of a unique approach to generalized cell synthesis, together with a novel solution of the placement and routing problem. Our algorithms take advantage of a larger space of possible solutions than is available in conventional, fixed-cell approaches to achieve compact and efficient layouts. First, our techniq ...

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1 Monitoring data streams: Adaptive filters for continuous queries over distributed data streams

Chris Olston, Jing Jiang, Jennifer Widom

June 2003 **Proceedings of the 2003 ACM SIGMOD international conference on Management of data**

Full text available: pdf(244.11 KB)

Additional Information: [full citation](#), [abstract](#), [references](#), [citings](#), [index terms](#)

We consider an environment where distributed data sources continuously stream updates to a centralized processor that monitors continuous queries over the distributed data. Significant communication overhead is incurred in the presence of rapid update streams, and we propose a new technique for reducing the overhead. Users register continuous queries with precision requirements at the central stream processor, which installs filters at remote data sources. The filters adapt to changing condition ...

2 Group communication in multichannel networks with staircase interconnection topologies

P. K. McKinley, J. W. S. Liu

August 1989 **ACM SIGCOMM Computer Communication Review , Symposium**
proceedings on Communications architectures & protocols, Volume 19 Issue 4

Full text available: pdf(1.25 MB)

Additional Information: [full citation](#), [abstract](#), [references](#), [citings](#), [index terms](#)

Recently, multichannel networks composed of several parallel, medium-speed channels multiplexed on a single high-speed medium have been proposed as a practical way to harness the high bandwidths of optical fibers. In order to limit the cost of network interfaces, a partially-connected multichannel network allows each node access to only a proper subset of the channels, its channel set. Staircase interconnection topologies constitute a family of partially-connected multichannel networks in w ...

3 Constraints in data mining: SPARTAN: using constrained models for guaranteed-error semantic compression

Shivnath Babu, Minos Garofalakis, Rajeev Rastogi

June 2002 **ACM SIGKDD Explorations Newsletter**, Volume 4 Issue 1Full text available: pdf(259.12 KB)

Additional Information: [full citation](#), [abstract](#), [references](#), [citings](#)


While a variety of lossy compression schemes have been developed for certain forms of digital data (e.g., images, audio, video), the area of lossy compression techniques for

arbitrary data tables has been left relatively unexplored. Nevertheless, such techniques are clearly motivated by the ever-increasing data collection rates of modern enterprises and the need for effective, guaranteed-quality approximate answers to queries over massive relational data sets. In this paper, we propose *SPARTAN* ...

4 SPARTAN: a model-based semantic compression system for massive data tables

Shivnath Babu, Minos Garofalakis, Rajeev Rastogi

May 2001 **ACM SIGMOD Record , Proceedings of the 2001 ACM SIGMOD international conference on Management of data**, Volume 30 Issue 2

Full text available:  [pdf\(240.19 KB\)](#) Additional Information: [full citation](#), [abstract](#), [references](#), [citations](#), [index terms](#)

While a variety of lossy compression schemes have been developed for certain forms of digital data (e.g., images, audio, video), the area of lossy compression techniques for arbitrary data tables has been left relatively unexplored. Nevertheless, such techniques are clearly motivated by the ever-increasing data collection rates of modern enterprises and the need for effective, guaranteed-quality approximate answers to queries over massive relational data sets. In this paper, we propose *SPA* ...

5 An Architecture for the Integration of Physical and Informational Spaces

Scott M. Thayer, Peter Steenkiste

July 2003 **Personal and Ubiquitous Computing**, Volume 7 Issue 2

Full text available:  [pdf\(328.25 KB\)](#) Additional Information: [full citation](#), [abstract](#), [index terms](#)


Abstract While computer processing power, storage capacity, and bandwidth are continuing to experience exponential growth, individual human processing capabilities are not increasing significantly. Pervasive computing offers an opportunity for applications to interact with the physical environment and to provide a task-centric and mobile infrastructure for the user. However, this rich environment can also be distracting, in part because of a lack of convergence between the physical infrastructure ...

Keywords: Context-aware computing, Distraction-free, Multi-modal input-output, Pervasive computing

6 Measuring thin-client performance using slow-motion benchmarking

Jason Nieh, S. Jae Yang, Naomi Novik

February 2003 **ACM Transactions on Computer Systems (TOCS)**, Volume 21 Issue 1

Full text available:  [pdf\(871.62 KB\)](#) Additional Information: [full citation](#), [abstract](#), [references](#), [citations](#), [index terms](#)

Modern thin-client systems are designed to provide the same graphical interfaces and applications available on traditional desktop computers while centralizing administration and allowing more efficient use of computing resources. Despite the rapidly increasing popularity of these client-server systems, there are few reliable analyses of their performance. Industry standard benchmark techniques commonly used for measuring desktop system performance are ill-suited for measuring the performance of ...

Keywords: Thin-client computing, client-server, measurement methodology, multimedia

7 New products

Linux Journal Staff


September 2002 **Linux Journal**, Volume 2002 Issue 101

Full text available:  [html\(6.95 KB\)](#) Additional Information: [full citation](#), [index terms](#)

8 Real-time prevention of network traffic spoofing

Ming Gu


April 2000 **Journal of Computing Sciences in Colleges , Proceedings of the fifth annual CCSC northeastern conference on The journal of computing in small colleges**, Volume 15 Issue 5

Full text available:  [pdf\(10.62 KB\)](#) Additional Information: [full citation](#), [index terms](#)

9 A Java expert system generator

Stefano Gaudio


April 2000 **Journal of Computing Sciences in Colleges , Proceedings of the fifth annual CCSC northeastern conference on The journal of computing in small colleges**, Volume 15 Issue 5

Full text available:  [pdf\(13.70 KB\)](#) Additional Information: [full citation](#), [index terms](#)

10 Scalable parallel simulations of wireless networks with WiPPET: modeling of radio propagation, mobility and protocols

O. E. Kelly, J. Lai, N. B. Mandayam, A. T. Ogielski, J. Panchal, R. D. Yates

September 2000 **Mobile Networks and Applications**, Volume 5 Issue 3

Full text available:  [pdf\(175.62 KB\)](#) Additional Information: [full citation](#), [abstract](#), [references](#), [citations](#), [index terms](#)

We review the design, selected applications and performance of WiPPET & lpar; Wireless Propagation and Protocol Evaluation Testbed); a general parallel simulation testbed for various types of wireless networks. WiPPET has been written in TeD/C++; an object‐oriented modeling framework that isolates network modeling from the underlying parallel discrete event simulator. We describe the techniques for modeling radio propagation & lpar; long and short‐scale fading and ...

11 Intrusion detection systems and multisensor data fusion

Tim Bass

April 2000 **Communications of the ACM**, Volume 43 Issue 4

Full text available:  [pdf\(99.81 KB\)](#)  [html\(34.77 KB\)](#) Additional Information: [full citation](#), [references](#), [citations](#), [index terms](#)

12 Traffic descriptors for VBR video teleconferencing over ATM networks

Amy R. Reibman, Arthur W. Berger

June 1995 **IEEE/ACM Transactions on Networking (TON)**, Volume 3 Issue 3

Full text available:  [pdf\(1.13 MB\)](#) Additional Information: [full citation](#), [references](#), [citations](#), [index terms](#)

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1 [Virtual clock: a new traffic control algorithm for packet switching networks](#)

L. Zhang

 August 1990 **ACM SIGCOMM Computer Communication Review , Proceedings of the ACM symposium on Communications architectures & protocols**, Volume 20 Issue 4

Full text available: pdf(1.19 MB)

 Additional Information: [full citation](#), [abstract](#), [references](#), [citations](#), [index terms](#)

A challenging research issue in high speed networking is how to control the transmission rate of statistical data flows. This paper describes a new algorithm, VirtualClock, for data traffic control in high-speed networks. VirtualClock maintains the statistical multiplexing flexibility of packet switching while ensuring each data flow its reserved average throughput rate at the same time. The algorithm has been tested through simulation.

2 [Session 21: computer-communication interaction: Using high speed networks to enable distributed parallel image server systems](#)

Brian L. Tierney, William E. Johnston, Hanan Herzog, Gary Hoo, Guojun Jin, Jason Lee, Ling Tony Chen, Doron Rotem

 November 1994 **Proceedings of the 1994 ACM/IEEE conference on Supercomputing**

Full text available: pdf(989.28 KB)

 Additional Information: [full citation](#), [abstract](#), [references](#)

We describe the design and implementation of a distributed parallel storage system that uses high-speed ATM networks as a key element of the architecture. Other elements include a collection of network-based disk block servers, and an associated name server that provides some file system functionality. The implementation is based on user level software that runs on UNIX workstations. Both the architecture and the implementation are intended to provide for easy and economical scalability. This ap ...

3 [Distributed parallel data storage systems: a scalable approach to high speed image servers](#)

Brian Tierney, Jason Lee, Ling Tony Chen, Hanan Herzog, Gary Hoo, Guojun Jin, William E. Johnston

 October 1994 **Proceedings of the second ACM international conference on Multimedia**

Full text available: pdf(790.57 KB)


 Additional Information: [full citation](#), [abstract](#), [references](#), [citations](#), [index terms](#)

We have designed, built, and analyzed a distributed parallel storage system that will supply image streams fast enough to permit multi-user, "real-time", video-like applications in a wide-area ATM network-based Internet environment. We have based the implementation on user-level code in order to secure portability; we have characterized the performance bottlenecks arising from operating system and hardware issues, and based on this have

optimized our design to make the best use ...

4 Real-time data acquisition at mission control

John Muratore, Troy Heindel, Terri Murphy, Arthur Rasmussen, Robert McFarland
December 1990 **Communications of the ACM**, Volume 33 Issue 12


Full text available:  pdf(6.84 MB)

Additional Information: [full citation](#), [abstract](#), [references](#), [citations](#), [index terms](#), [review](#)

Perhaps one of the most powerful symbols of the United States' technological prowess is the Mission Control Center (MCC) at the Lyndon B. Johnson Space Center in Houston. The rooms at Mission Control have been witness to major milestones in the history of American technology such as the first lunar landing, the rescue of Skylab, and the first launch of the Space Shuttle. When Mission Control was first activated in the early 1960s it was truly a technological marvel. This facility, however, ...

5 VirtualClock: a new traffic control algorithm for packet-switched networks

Lixia Zhang
May 1991 **ACM Transactions on Computer Systems (TOCS)**, Volume 9 Issue 2

Full text available:  pdf(1.76 MB)

Additional Information: [full citation](#), [abstract](#), [references](#), [citations](#), [index terms](#), [review](#)

One of the challenging research issues in building high-speed packet-switched networks is how to control the transmission rate of statistical data flows. This paper describes a new traffic control algorithm, VirtualClock, for high-speed network applications. VirtualClock monitors the average transmission rate of statistical data flows and provides every flow with guaranteed throughput and low queueing delay. It provides firewall protection among individual flows, as in a TD ...

Keywords: data traffic control, performance guarantee, rate-based flow-control algorithms, statistical multiplexing, time-division-multiplexing

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1 Fiber networks maintenance in the all-optical network era
Pellegatta, M.; Monguzzi, M.; Mazzaresse, A.; Zucchetti, A.;

Network Operations and Management Symposium, 2002. NOMS 2002. 2002 IEEE/IFIP, 15-19 April 2002

Pages: 855 - 868

[\[Abstract\]](#)
[\[PDF Full-Text \(625 KB\)\]](#)
IEEE CNF
2 Design of a generic architecture for service management and monitoring of service level agreements through distributed intelligent agents
De Turck, F.; Vanhastel, S.; Backx, P.; Duyburgh, B.; Demeester, P.;

Intelligent Network Workshop, 2001 IEEE, 6-9 May 2001

Pages: 50 - 57

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IEEE CNF

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Packet sniffing: a brief introduction

 Ansari, S. [Rajeev, S.G.](#) [Chandrashekar, H.S.](#)
This paper appears in: Potentials, IEEE

Publication Date: Dec. 2002-Jan. 2003

On page(s): 17 - 19

Volume: 21 , Issue: 5

ISSN: 0278-6648

Inspec Accession Number: 7485652

Abstract:

Packet sniffing is a method of tapping each packet as it flows across the network. It is a technique in which a user sniffs data belonging to other users of the network. Sniffers can operate as an administrative tool or for malicious purposes. It depends on the user's intent. Network administrators use them for monitoring and validating network traffic. Packet sniffers are basically applications. They are programs used to monitor data that travel across the network layer of the Transmission Control Protocol/Internet Protocol (TCP/IP) layer. (Basically, the packets are retrieved from the network and the data is interpreted.) Packet sniffers are utilities that can be efficiently used for network administration. At the same time, it can also be used for nefarious activities. However, a user can employ a number of techniques to detect sniffers on the network and protect the data from sniffers. The technique behind packet sniffing on shared broadcast LANs is explained.

Index Terms:

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